



# UNITED STATES PATENT AND TRADEMARK OFFICE

*AM*  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,734	01/23/2002	Joseph Perttu	3054.24US02	6211
24113	7590	12/03/2003		
PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A. 4800 IDS CENTER 80 SOUTH 8TH STREET MINNEAPOLIS, MN 55402-2100				
			EXAMINER	
			RIOS CUEVAS, ROBERTO JOSE	
		ART UNIT	PAPER NUMBER	
		2836		

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/055,734	Applicant(s) PERTTU, JOSEPH	
	Examiner Roberto J Rios	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8/5/2002 .                      6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Oath/Declaration***

1. The Response to Notice to File Missing Parts of Non-Provisional Application filed on 04/29/2002 indicated that a combined Declaration and Power of Attorney was included. However, the Examiner was unable to find the declaration in the file. Applicant is respectfully requested to resubmit a Declaration.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the single electrical panel housing must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-5, and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schnackenberg et al (US patent 6,172,432) in view of Motoki (US patent 5,124,881).

As per claims 1, 8, and 11, Schnackenberg et al (herein after Schnackenberg) teach a method for connecting and operating a low power ATS for residential use to automatically switch power between a primary source of utility power and a backup source provided by an engine generator, ATS comprising: circuit breakers connected to the primary source, the backup source; and a load; a pair of electrically interlocked power relays electrically connected between the load circuit breaker and the primary circuit breaker and the backup circuit breaker; and control logic operably connected to the power relays and including a controller to control the operation of the power relays to switch from the primary source to the backup source in the event that the control logic detects a decrease in at least one measurable characteristic of the primary source greater than a predetermined value. Schnackenberg does not specifically disclose the ATS comprising a single electrical panel housing. However, Motoki teaches power transfer switchgear, wherein all the circuitry and electrical components necessary are enclosed in a single electrical panel housing (Figure 6; col. 5, lines 27-49).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Schnackenberg's ATS arrangement with Motoki's housing for the purpose of reducing the cost of the system and facilitating inspection and maintenance thereof.

As per claims 3 and 9, Schnackenberg teaches the circuit breakers rated for no more than 10 kilowatts (col. 5, line 22).

As per claims 4 and 10, Schnackenberg teaches the controller providing control signals to start and stop the backup source (col. 2, line 39+).

As per claim 5, Schnackenberg teaches the controller monitoring at least one measurable characteristic of the backup source after it is started before switching from the primary source to the backup source (col. 2, line 39+).

As per claim 7, Schnackenberg teaches an operator panel positioned on a front of the electrical panel (col. 3, line 55).

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schnackenberg in view of Motoki as applied to claim 1 above, and further in view of Chow et al (IEEE 1063-8210/99).

As per claim 2, Schnackenberg teaches programmable controller comprising memory means but does not specifically disclose the controller being a field programmable gate array (FPGA). However, Chow et al (herein after Chow) teach that FPGA's are programmable controllers widely used for its flexibility in design and future adaptation.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Schnackenberg's programmable controller with Chow's FPGA for the purpose of providing a flexible and adaptable the ATS system.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schnackenberg in view of Motoki as applied to claim 1 above, and further in view of Baranski et al (US patent 5,959,448).

As per claim 6, Schnackenberg teaches monitoring the primary power source but does not specifically disclose using an optical coupling. However, Baranski et al (herein

Art Unit: 2836

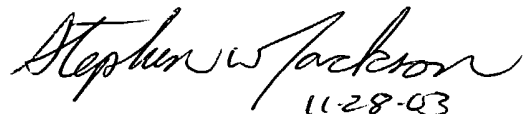
after Baranski) teach an ATS system comprising an optical coupling to monitor at least one measurable characteristic of the power sources (Figure 2).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Schnackenberg's monitoring means with Baranski's optical coupling for the purpose of protecting a user from potentially dangerous line voltage.

7. Art of general nature relating to ATS has been cited for applicant's review.

#### **Communication with PTO**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rios whose telephone number is (703) 306-5518. In the event that Examiner Rios cannot be reached, his supervisor, Brian Sircus may be contacted at (703) 308-3119. The fax number for Before-Final communications and After-Final communications is (703) 872-9306.



11-28-03

STEPHEN W. JACKSON  
PRIMARY EXAMINER

Roberto J. Rios  
Patent Examiner